

This Response to Office Action is in response to the Office Action mailed February 26, 2002.

A. Clean Version Of Amended Portion(s) Of Application

In the Claims

The following are all claims that are to be pending in the above-referenced application as a result of this Response to Office Action. No claims have been deleted and claims 13-27 have been added, including new independent claims 16, 20 and 24.

A1

1. A system for generating a panoramic mosaic image pair, the panoramic mosaic image pair comprising left and right panoramic mosaic images that, when viewed contemporaneously by respective left and right eyes, facilitate panoramic stereoscopic viewing of a scene, the system comprising left and right panoramic image generators each configured to generate the left and right panoramic mosaic images from a series of images corresponding to respective positions relative to the scene, each image having a respective left and right image portion, the left panoramic image generator being configured to mosaic the left image portions from the images to form the left panoramic image and the right panoramic image generator being configured to mosaic the right image portions from the images to form the right panoramic image.

2. A system as defined in claim 1 in which each respective position corresponds to a change in angular orientation.

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3. A system as defined in claim 1 in which each respective position corresponds to a translational position.

4. A system as defined in claim 1 further comprising an image generator configured to generate said series of images.

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1 5. A system as defined in claim 4 in which said image generator is configured to generate said series
2 of images using a predetermined computer graphic technique.

1 6. A system as defined in claim 4 in which said image generator comprises a camera rig configured
2 to record images of a scene.

A13
2 7. A system as defined in claim 6 in which said camera rig is configured to record said series of
3 images, and the left and right panoramic image generators are configured to utilize portions of the
images in generating the left and right panoramic images.

1 8. A system as defined in claim 7 in which said camera rig comprises separate image recorders
2 configured to separately record images used by the left and right panoramic image generators.

1 9. A system for displaying a stereo panoramic image to a viewer, said system comprising respective
2 left and right display elements each configured to display left and right panoramic images of a scene
3 to said viewer such that one of said images is viewed by each of said viewer's eyes.

1 10. A system as defined in claim 9 in which each of said left and right display elements comprises
2 a display device configured to be placed in front of a respective one of the viewer's eyes, and a
3 display control for displaying the left and right panoramic images in registration with each other so
4 as to provide a stereoscopic panoramic view of the scene.

1 11. A system as defined in claim 10 in which said display control enables the viewer to control the
2 position of the panoramic view.

1 12. A system as defined in claim 9 in which said left and right display element includes a plurality
2 of projectors each configured to project one of said left and right panoramic images overlapping on
3 a screen, and an arrangement for facilitating transmission of a respective one of said images to each
4 of the viewer's eyes.

13. A system as defined in claim 1 in which, in one of said images, each of said left and right image portions comprises a respective strip of the one of said images displaced to the left and right, respectively, from a respective axis of the one of said images.

14. A system as defined in claim 13 in which the axis is vertical.

15. A system as defined in claim 13 in which the axis is horizontal.

16. A system for generating a panoramic mosaic image of a scene from a series of images of the scene recorded at a corresponding series of positions relative to the scene, the system comprising:

- A. a strip selector configured to select, from each of said images, a strip, all of said strips being displaced from a selected one of said sides of an axis of the image by a selected amount; and
- B. a mosaic image generator configured to mosaic the strips selected by the strip selector from the successive images together thereby to construct the panoramic mosaic image.

17. A system as defined in claim 16 in which the axis is vertical.

18. A system as defined in claim 16 in which the axis is horizontal.

19. A system as defined in claim 16 in which

- A. the strip selector is further configured to select, from each of said images, a second strip, all of said second strips being displaced from another of said sides of an axis of the image by a selected amount; and
- B. a mosaic image generator configured to mosaic the second strips selected by the strip selector from the successive images together thereby to construct a second panoramic mosaic image, the two panoramic mosaic images jointly comprising the panoramic mosaic image pair that facilitates panoramic stereoscopic viewing of the scene.

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20. A method of generating a panoramic mosaic image of a scene from a series of images of the scene recorded at a corresponding series of positions relative to the scene, the method comprising the steps of:

- A. selecting, from each of said images, a strip, all of said strips being displaced from a selected one of said sides of an axis of the image by a selected amount; and
- B. mosaicing the selected strips together thereby to construct the panoramic mosaic image.

21. A method as defined in claim 20 in which the axis is vertical.

22. A method as defined in claim 20 in which the axis is horizontal.

23. A method as defined in claim 20 further comprising the steps of:

- A. selecting, from each of said images, a second strip, all of said second strips being displaced from another of said sides of an axis of the image by a selected amount; and
- B. mosaicing the second strips together thereby to construct a second panoramic mosaic image, the two panoramic mosaic images jointly comprising the panoramic mosaic image pair that facilitates panoramic stereoscopic viewing of the scene.

24. A method of displaying a stereo panoramic image to a viewer, said method comprising the steps of:

- A. providing respective left and right display elements each configured to display left and right panoramic images of a scene to said viewer such that one of said images is viewed by each of said viewer's eyes, and
- B. enabling the left and right display element to display the respective left and right panoramic images of the scene to said viewer.

25. A method as defined in claim 24, in which each of said left and right display elements comprises a display device configured to be placed in front of a respective one of the viewer's eyes, the method further comprising the steps of

- A. placing each display device in front of the respective one of the viewers eyes, and

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6 B. displaying the left and right panoramic images in registration with each other so as to provide
a stereoscopic panoramic view of the scene.

1 26. A system as defined in claim 25 further comprising the step of controlling the position of the
2 panoramic view.

1 27. A method as defined in claim 24 in which said left and right display element includes a plurality
2 of projectors each configured to project one of said left and right panoramic images overlapping on
3 a screen, and an arrangement for facilitating transmission of a respective one of said images to each
4 of the viewer's eyes, the method further comprising the step of

5 A. enabling the projectors to project the respective left and right panoramic images on the
6 screen so that, if the viewer wears the arrangement, the images will be viewed as a stereo
7 panoramic image.

B. Marked-Up Version Of Amended Portion(s) Of Application To Show Changes MadeIn the Claims

The changes made to the previously-pending claims are:

1 1. A system for generating a panoramic mosaic image pair, the panoramic mosaic image pair
2 comprising left and right panoramic mosaic images [for use in facilitating] that, when viewed
3 contemporaneously by respective left and right eyes, facilitate panoramic stereoscopic viewing of
4 a scene, the system comprising left and right panoramic image generators each configured to
5 generate the left and right panoramic mosaic images from a series of images corresponding to
6 respective positions relative to the scene, each image having a respective left and right image
7 portion, [and to mosaic portions of those images together to form the respective left and right
8 panoramic images.] the left panoramic image generator being configured to mosaic the left image
9 portions from the images to form the left panoramic image and the right panoramic image generator
10 being configured to mosaic the right image portions from the images to form the right panoramic
11 image.

1 3. A system as defined in claim 1 in which each respective position corresponds to a translational
2 position.

1 4. A system as defined in claim 1 further [ocmprising] comprising an image generator [for
2 generating] configured to generate said series of images.

1 5. A system as defined in claim 4 in which said image generator [generates] is configured to generate
2 said series of images using a predetermined computer graphic technique.

1 7. A system as defined in claim 6 in which said camera rig [records] is configured to record said
2 series of images, and the left and right panoramic image [generates] generators are configured to
3 utilize portions of the images [ing] in generating the left and right panoramic images.

1 8. A system as defined in claim 7 in which said camera rig comprises separate image [records for]
2 recorders configured to separately [recording] record images used by the left and right panoramic
3 image generators.

1 9. A system for displaying a stereo panoramic image to a viewer, said system comprising respective
2 left and right display [element] elements each configured to display left and right panoramic images
3 of a scene to said viewer such that one of said images is viewed by each of said viewer's eyes.